

(19) World Intellectual Property
Organization
International Bureau



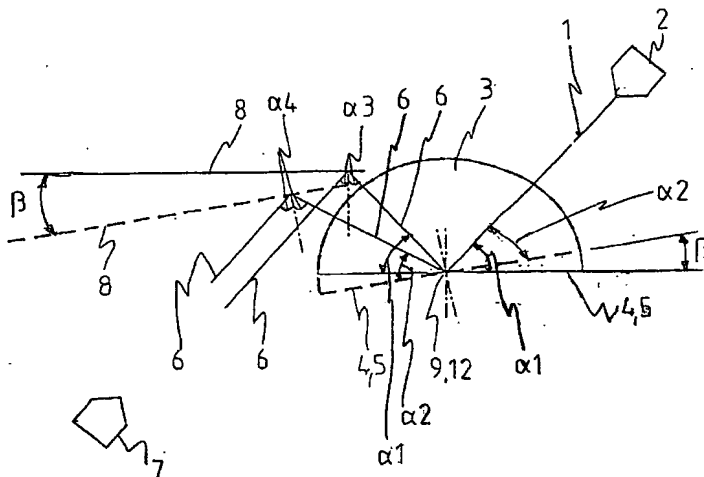
(43) International Publication Date
2 June 2005 (02.06.2005)

PCT

(10) International Publication Number
WO 2005/050181 A1

- (51) International Patent Classification⁷: **G01N 21/55**
- (21) International Application Number:
PCT/FI2003/000887
- (22) International Filing Date:
19 November 2003 (19.11.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (71) Applicant (for all designated States except US): **BIOFONS LTD [FI/FI]**; Tykistökatu 4 B, FIN-20520 Turku (FI).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **SADOWSKI, Janusz [PL/FI]**; Kirkkoladonkatu 24 A 1, FIN-33560 Tampere (FI).
- (74) Agent: **KOLSTER OY AB**; Iso Roobertinkatu 23, P.O. Box 148, FIN-00121 Helsinki (FI).
- (81) Designated States (*national*): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, EG, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT (utility model), PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND DEVICE FOR CARRYING OUT SURFACE PLASMON RESONANCE MEASUREMENT



(57) Abstract: The invention relates to a method and a device for carrying out surface plasmon resonance measurement. A beam (1) of electromagnetic radiation is produced by a source (2) of electromagnetic radiation. Said beam (1) of electromagnetic radiation is directed through a prism (3) onto a material layer (5) in an angle (α_1 ; α_2) of incidence, which material layer (5) covers a planar surface (4) of the prism (3). A resonance phenomenon is caused. A beam (6) of reflected electromagnetic radiation is produced and directed by the surface (4) to a detector (7) for detecting the level of intensity of the beam (6) of reflected electromagnetic radiation. The change of intensity of the beam (6) of reflected electromagnetic radiation, caused by the surface resonance phenomenon, is measured. Said beam (6) of reflected electromagnetic radiation is reflected with a mirror (8) to the detector (7).